

REMARKS

Favorable reconsideration and withdrawal of the objection and rejections set forth in the Official Action in view of the foregoing amendments and the following remarks are respectfully requested.

Initially, Applicants express their appreciation to the Examiner for recognizing and correcting the numbering of the claims set forth in the Preliminary Amendment filed June 30, 2000. Except as noted herein, the correct claim numbers are used.

Claims 28 through 47 remain pending in the application. Claims 28 through 30, 32, 35, and 42 have been amended to even more succinctly define the invention and/or to improve their form. It is respectfully submitted that no new matter has been added. Claims 28 and 42 are the only independent claims present in the application.

Claims 28 through 41 are objected to because Claim "29" (incorrect numbering used in Preliminary Amendment) recites "the other image" in lines 11 and 12, which lack antecedent basis. In addition, Claim "30" (incorrect numbering used in Preliminary Amendment) is said to be unclear. These claims have been amended *inter alia* to overcome the objection.

Claims 28 through 36 are rejected under 35 U.S.C. § 102(b) as being anticipated by 4,277,162 (Kasahara, et al.). The rationale underlying the rejection is succinctly set forth in the Official Action. The rejection is respectfully traversed.

Amended independent Claim 28 calls for an image forming apparatus that includes an image bearing member. An image forming means forms a toner image on the image bearing member, wherein the toner image is transferred to a transfer medium from

the image bearing member. A density detecting means detects a density of a toner image for density detection transferred to the transfer medium. An image forming condition control means controls an image forming condition by the image forming means based on the detection output of the density detecting means, wherein a transfer intensity is changeable in accordance with a density of the toner image for density detection formed on the image bearing member by the image forming means when the toner image for density detection is transferred from the image bearing member to the transfer medium.

Kasahara, et al. discloses control of the density of the copy image using a density signal obtained from marks on a “transfer belt.” More specifically, “marks 34 and 36 having different predetermined optical densities are provided on a non-image area of the platen 23. Electrostatic images of the marks 34 and 36 are formed on a non-image area of the drum 12 and developed to form toner images of the marks 34 and 36. The toner images are transferred to a non-image area of the belt 19 (external of the image area which carries the copy sheet 21) and designated as 37 and 38 respectively.” See column 3, lines 61 through column 9, line 1. However, Kasahara, et al. does not disclose detecting the density of a toner image transferred to a “transfer medium” recited in amended independent Claim 1. Accordingly, Kasahara, et al. does not anticipate the invention recited in Claim 1.

Claims 37 through 47 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,277,162 (Kasahara, et al.), which was cited in the Information Disclosure Statement filed, June 20, 2000, in view of newly-cited U.S. Patent No. 5,305,057 (Hattori, et al.). The rationale underlying the rejection is set forth in the Official Action. The rejection is respectfully traversed.

Amended independent Claim 42 calls for an image forming apparatus that includes an image bearing member. An image forming means forms a toner image, wherein the toner image is transferred onto a transfer medium from the image bearing member. A density detecting means detects a density of a toner image for density detection transferred onto the transfer medium. An ambient condition detecting means detects an ambient condition. A control means controls a transfer intensity upon transfer of the toner image for density detection onto the transfer medium on the basis of an output of said ambient condition detecting means.

A feature of the invention defined in Claim 42 is in the control means, which controls the transfer intensity upon transfer of the toner image for density detection onto the transferred medium on the basis of an out of the ambient condition detecting means. This feature is effective to accomplish optimum transfer of the toner image for density detection for correspondingly to the ambient conditions, and therefore, to accomplish proper density control.

The Examiner correctly recognizes that Kasahara, et al. does not teach or suggest the claimed ambient condition detection means and adjusting an image forming means based on an ambient condition detection result. Accordingly, Hattori, et al. is cited for merely an ambient condition detection means, wherein an ambient image is reproduced using an output of the temperature or humidity detector. However, Hattori, et al. also fails to disclose or suggest the above-noted feature discussed in connection with Claim 28, regarding detecting a density of a toner image for density detection transferring to a transfer medium. That feature is also recited in Claim 42.

It is also respectfully submitted that the combination rejection is not well founded. The Examiner has provided a *rationalization* for combining the teachings of the cited art based on the benefits of doing so. A combination rejection is proper only when there is some suggestion or motivation in the cited art per se to cause one having ordinary skill in the art to combine the teachings of the cited art. There is nothing in the cited art which supports the position that it can be combined in the manner suggested. Even if the art could be so combined, the mere fact that the art can be combined is not sufficient if there is no suggestions in the art that such a combination is desirable. For example, see ACS Hospital Systems, Inc. v. Montefiore Hospital, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

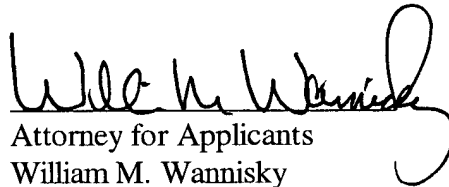
In view of the foregoing, it is respectfully submitted that independent Claims 28 and 42 are allowable over Kasahara, et al. and Hattori, et al. whether taken individually or in combination.

Dependent Claims 29 through 41 and 43 through 47 depend either directly or indirectly from one of independent Claims 28 and 42 and are allowable by virtue of their dependency and in their own right for further defining Applicants' invention. Individual consideration of the dependent claims is respectfully requested.

In view of the foregoing, it is respectfully submitted that all claims in the application are now in condition for allowance. Favorable reconsideration and early passage to issue of the present application are respectfully submitted.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "William M. Wannisky", written over a horizontal line.

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VERSION WITH MARKINGS SHOWING CHANGES MADE TO CLAIMS

28. (Amended) An image forming apparatus comprising:

an image bearing member;

image forming means for forming a toner image on said image bearing member, wherein the toner image is transferred onto a transfer medium from said image bearing member;

density detecting means for detecting a density of a [the] toner image for density detection transferred to the transfer medium; and

image forming condition control means for controlling an image forming condition by said image forming means based on the detection output of said density detecting [detection] means,

wherein a transfer intensity is changeable in accordance with a density of the toner [other] image for density detection formed on said image bearing member by said image forming means when the toner image for density detection is transferred [transfer] from said image bearing member to the transfer medium.

29. (Amended) An apparatus according to Claim 28, wherein the transfer intensity when the toner image for density detection having [has] a maximum density image formed on said image bearing member by said image forming means is transferred onto the transfer medium is larger than when the toner image for density detection having a

halftone density image formed on said image bearing member by said image forming means is transferred onto the transfer medium.

30. (Amended) An apparatus according to Claim 28 or 29, wherein said image forming means includes exposure means for exposing a surface of said image bearing member, which has been electrically charged to in accordance with image information with an exposure amount, which is changeable in accordance with the density of the toner image for density detection formed on said image bearing member by said image forming means.

32. (Amended) An apparatus according to Claim 28 or 29, wherein the transfer intensity when the toner image for density detection is transferred onto the transfer medium is changeable in accordance with a tone gradation level of the toner image for density detection formed on said image bearing member by said image forming means.

35. (Amended) An apparatus according to Claim 33 or 34, wherein a surface potential of said image bearing member exposed by said exposure means is changeable in accordance with a density of the toner [a total] image for density detection to be formed on said image bearing member by said image forming means.

42. (Amended) An image forming apparatus comprising:

an image bearing member;

image forming means for forming a toner image, wherein the toner image is transferred onto a transfer medium from said image bearing member;

density detecting means for detecting a density of a [the] toner image for density detection transferred onto the transfer medium;

ambient condition detecting means for detecting an ambient condition; and

control means for controlling a transfer intensity upon transfer of the toner image for density detection onto the transfer medium on the basis of an output of said ambient condition detecting means.